Important Advances in Clinical Medicine

Epitomes of Progress -- General Surgery

The Scientific Board of the California Medical Association presents the following inventory of items of progress in General Surgery. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in General Surgery which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on General Surgery of the California Medical Association and the summaries were prepared under its direction.

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Selective Gastric Vagotomy

VAGOTOMY is well established in the surgical treatment of duodenal ulcer disease, but controversy continues as to whether the vagotomy should be truncal or selective and whether it should be accompanied by antrectomy or pyloroplasty. While no clearly significant differences in postoperative sequelae have been shown between truncal and selective vagotomy, there is evidence suggesting that the gastric denervation as judged by the Hollander test is more complete after the selective operation. This may be due to the more demanding technique involved in selective vagotomy or may relate to some metabolic factor such as inadequate release of secretin by the duodenum in the presence of parasympathetic denervation—secretin being a potent inhibitor of gastrin stimulated gastric secretion.

While vagotomy with pyloroplasty has a slightly lower operative mortality rate, it is generally conceded to have a somewhat higher incidence of ulcer recurrence than vagotomy accompanied by antrectomy. The preliminary results of a prospective randomized study by Sawyers and Scott suggest that the ulcer recurrence rate is the same when selective vagotomy is used. Care must be taken to insure that the adequate antral drainage is obtained when pyloroplasty is used. The accumulating evidence

suggests that selective gastric vagotomy either with antrectomy or pyloroplasty may become increasingly important in the elective surgical treatment of duodenal ulcer for those accustomed to the technique. This should not detract from the well-established value of truncal vagotomy particularly when operation is performed under emergency circumstances.

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REFERENCES

Sawyers JL, Scott HW Jr: Selective gastric vagotomy with antrectomy or pyloroplasty. Ann Surg 147:541-547, Oct 1971

Sawyers JL, Scott HW Jr, Edwards WH, et al: Comparative studies of the clinical effects of truncal and selective gastric vagotomy. Am J Surg 115:165, Feb 1968

Antibacterial Agents to Control Infection Associated with Burns

INFECTION STILL IS THE PRIMARY cause of death in patients with extensive burns. Great strides have been made during the past decade in the topical and systemic use of antibacterial agents to treat burned patients. Antibacterials commonly used topically include mafenide (Sulfamylon®), silver nitrate, gentamicin and silver sulfadiazine. Topical agents serve only to treat burn wound sepsis and not other sources of infection such as pneumonia, phlebitis, and the urinary tract. These later infections require systemic antibiotic administration. Gentamicin and Sulfamylon used topically are effective clinically because they actively penetrate the burn wound in reasonable concentrations. Silver nitrate penetrates less well and hence is less helpful in estabished infections. Sulfamylon, silver nitrate, and silver sulfadiazine are effective against Gram-negative bacteria while gentamicin is equally effective against Gram-positive and Gram-negative organisms.

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REFERENCES

Hummel RP, MacMillan BG, Altemeier WA: Topical and systemic antibacterial agents in the treatment of burns. Ann Surg 172:370-384, Sep 1970

Feller I: 1971 Supplement International Bibliography on Burns, Ann Arbor, Michigan, Institute for Burn Medicine, 1971

Intestinal Bypass for Morbid Obesity

ACCUMULATING EVIDENCE indicates that intestinal bypass procedures may be recommended for carefully selected massively obese patients who are unable to control their obesity problem by more conservative means. Scott et al have proposed that the bypass be accomplished by dividing the jejunum a few inches distal to the Treitz ligament and the ileum a few inches proximal to the ileocecal valve with end-to-end anastomosis of these segments. The open distal jejunum is drained by anastomosis with the transverse colon while the proximal jejunum is closed. Preliminary experience suggests that this arrangement relieves the tendency for ileal reflux frequently seen in the end-to-side type bypass introduced by Payne and DeWind. Eleven of the 12 patients in Scott's preliminary group lost weight at a satisfactory rate and had minimal problems with diarrhea. In addition there was a consistent associated reduction in the serum lipids.

The majority of these patients have significant fat accumulation in the liver before the operation, as well as other metabolic disturbances. The necessity for careful preoperative preparation and strict selection of patients must be emphasized, and close postoperative care and follow-up are essential.

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REFERENCES

Scott HW Jr, Sandstead HH, Brill AB, et al: Experience with a new technic of intestinal bypass in the treatment of morbid obesity. Ann Surg 174:560-572, Oct 1971

Payne JH, DeWind LT: Surgical treatment of obesity. Am J Surg 118:141, Aug 1969

Mediastinoscopy in Patients with Cancer of the Lung

EXPLORATION OF THE MEDIASTINUM has found a place in the evaluation of patients with carcinoma of the lung. Mediastinoscopy via the midline suprasternal route under general of local